

## MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

### AUTHORIZATION TO DISCHARGE UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. § 1251 et seq.,

BIG SKY COAL COMPANY (the Permittee)

is authorized to discharge from its BIG SKY MINE

located at STATE HIGHWAY 39 SOUTH, COLSTRIP MT, 59323

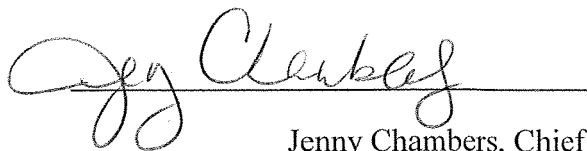
to receiving waters named Lee, Emile, Miller, and Hay Coulees

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit.

This permit shall become effective: July 1, 2011.

This permit and the authorization to discharge shall expire at midnight, June 30, 2016.

FOR THE MONTANA DEPARTMENT OF  
ENVIRONMENTAL QUALITY



Jenny Chambers, Chief  
Water Protection Bureau  
Permitting & Compliance Division

Issuance Date: *May 12, 2011*

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## I. EFFLUENT LIMITATIONS AND MONITORING & REPORTING REQUIREMENTS

### A. Description of Discharge Point(s) and Mixing Zone(s)

The authorization to discharge provided under this permit is limited to those outfalls designated as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of the unauthorized discharge could subject such person to criminal penalties as provided under Montana Water Quality Act, Section 75-5-632.

Table 1 provides a description of the discharge points and mixing zones for each outfall. Treatment consists of the use of sediment ponds to remove suspended solids from storm water runoff.

**Table 1. Description of Discharge Points and Mixing Zones**

Outfall	Latitude	Longitude	Outfall Description/ Effluent Description	Receiving Water	Mixing Zone
001	45° 48' 44"N	106° 35' 42"W	Sediment pond overflow; Treated storm water	Miller Coulee	1
002	45° 49' 45"N	106° 36' 01"W	Sediment pond overflow; Treated storm water	Emile Coulee	1
003	45° 49' 46"N	106° 35' 32"W	Sediment pond overflow; Treated storm water	Emile Coulee	1
005	45° 49' 34"N	106° 34' 32"W	Sediment pond overflow; Treated storm water	Emile Coulee	1
006	45° 49' 03"N	106° 35' 53"W	Sediment pond overflow; Treated storm water	Emile Coulee	1
007	45° 48' 06"N	106° 36' 37"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
008	45° 48' 03"N	106° 39' 20"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
009	45° 48' 09"N	106° 39' 29"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
010	45° 48' 16"N	106° 40' 04"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
011	45° 48' 23"N	106° 40' 08"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
012	45° 48' 33"N	106° 40' 39"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
013	45° 48' 07"N	106° 40' 25"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
014	45° 48' 03"N	106° 40' 00"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
015	45° 48' 02"N	106° 40' 01"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
016	45° 47' 52"N	106° 39' 04"W	Sediment pond overflow; Treated storm water	Lee Coulee	1

017	45° 47' 53"N	106° 38' 41"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
018	45° 48' 36"N	106° 40' 43"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
019	45° 50' 01"N	106° 34' 26"W	Sediment pond overflow; Treated storm water	Hay Coulee	1
020	45° 48' 06"N	106° 40' 28"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
021	45° 48' 38"N	106° 41' 17"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
022	45° 48' 53"N	106° 41' 28"W	Sediment pond overflow; Treated storm water	Lee Coulee	1
Footnotes: 1. There is no acute, chronic, or human health mixing zone allowed for this discharge.					

### **B. Effluent Limitations and Monitoring Requirements**

Effective immediately and lasting through the term of the permit, the quality of effluent discharged at Outfall 006 shall at a minimum, meet the limitations set forth in Table 2. All monitoring shall be conducted at the monitoring locations specified in Table 2, and section I.C.1 (Table 5) of this permit, and at a minimum monitoring frequency specified in Table 2. Samples must be collected according to the sampling type and analytical methods in Table 2 and must achieve the listed required reporting value (RRV) or minimum level (ML).

#### **Narrative Effluent Limitations**

- i. There shall be no discharge from any outfall listed in Table 1 that reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving water or upon adjoining shorelines.
- ii. There shall be no discharge from any outfall listed in Table 1 of floating solids or visible foam other than trace amounts.
- iii. There shall be no discharge from any outfall listed in Table 1 that produces visible oil sheen in the receiving stream.

**Table 2. Numeric Effluent Limitations and Monitoring Requirements – Outfall 006A**

Parameter	Units	Average Monthly Limitation <sup>1</sup>	Maximum Daily Limitation <sup>1</sup>	Monitoring Location <sup>2</sup>	Minimum Monitoring Frequency <sup>3</sup>	Sample Type <sup>1</sup>	RRV or ML
Flow	mgd	Report only	Report only	<sup>4</sup>	1/Day	<sup>5</sup>	--
Settleable Solids	ml/L	--	0.5	<sup>4</sup>	1/Month	Grab	10
pH	s.u.	Between 6.0 and 9.0 at all times		<sup>4</sup>	1/Month	Grab	0.1
Oil and Grease	mg/L	--	10	<sup>4</sup>	1/Month	Grab	1
Electrical Conductivity (EC)	µS/cm	500	500	<sup>4</sup>	1/Month	Grab	10
Sodium Adsorption Ratio (SAR) <sup>6</sup>	--	3.0	4.5	<sup>4</sup>	1/Month	Grab	--

Parameter	Units	Average Monthly Limitation <sup>1</sup>	Maximum Daily Limitation <sup>1</sup>	Monitoring Location <sup>2</sup>	Minimum Monitoring Frequency <sup>3</sup>	Sample Type <sup>1</sup>	RRV or ML
Sodium Adsorption Ratio (SAR) <sup>7</sup>	--	5.0	7.5	<sup>4</sup>	1/Month	Grab	--
<p>Footnotes:</p> <ol style="list-style-type: none"> <li>See Definitions and Abbreviations in section IV of this permit for explanation of terms.</li> <li>See Monitoring Locations in section I.C.1 of this permit.</li> <li>See Reporting Requirements in section I.C.5 of this permit.</li> <li>The effluent monitoring location is EFF-006.</li> <li>Requires a recording device or totalizer; Permittee must report average monthly and maximum daily flow on DMR.</li> <li>These effluent limitations are applicable March 2 through October 31 each year. Monitoring for SAR shall consist of monitoring for dissolved sodium, calcium, and magnesium, and the SAR shall be calculated according to the following equation based on results for these parameters. The ML for each of these parameters is 1.0 mg/L.  <math display="block">SAR = [Na^+]/\sqrt{(0.5*[Ca^{2+}] + [Mg^{2+}])}</math> </li> <li>These effluent limitations are applicable November 1 through March 1 each year. Monitoring for SAR shall consist of monitoring for dissolved sodium, calcium, and magnesium, and the SAR shall be calculated according to the following equation based on results for these parameters. The ML for each of these parameters is 1.0 mg/L.  <math display="block">SAR = [Na^+]/\sqrt{(0.5*[Ca^{2+}] + [Mg^{2+}])}</math> </li> </ol>							

### 1. Alternate Numeric Effluent Limitations and Monitoring Requirements – Precipitation Events

- Effluent limitations and monitoring requirements which may be applied alternately to the otherwise applicable effluent limitations and monitoring requirements presented in Table 2 to discharges at Outfall 006 are driven by precipitation events which result in a pond overflow. Table 3 presents effluent limitations for discharges caused by precipitation within any 24-hr period less than or equal to the 10-yr, 24-hr precipitation event (or snowmelt of equivalent volume). Table 4 presents monitoring requirements for discharges caused by precipitation within any 24-hr period greater than the 10-yr, 24-hr precipitation event (or snowmelt of equivalent volume).

**Table 3. Alternate Numeric Final Effluent Limitations and Monitoring Requirements – Precipitation Events at Outfall 006B**

Parameter	Units	Average Monthly Limitation <sup>1</sup>	Maximum Daily Limitation <sup>1</sup>	Monitoring Location	Minimum Monitoring Frequency <sup>2</sup>	Sample Type <sup>1</sup>	RRV or ML
Flow	mgd	Report only	Report only	<sup>3</sup>	1/Day <sup>4</sup>	<sup>5</sup>	--
Settleable Solids	mg/L	---	0.5	<sup>3</sup>	1/Discharge	Grab	10
pH	s.u.	Between 6.0 and 9.0 at all times		<sup>3</sup>	1/Discharge	Grab	0.1
Oil and Grease	mg/L	--	10	<sup>3</sup>	1/Discharge	Grab	1
Electrical Conductivity (EC)	µS/cm	Report only	Report only	<sup>3</sup>	1/Discharge	Grab	10

Parameter	Units	Average Monthly Limitation <sup>1</sup>	Maximum Daily Limitation <sup>1</sup>	Monitoring Location	Minimum Monitoring Frequency <sup>2</sup>	Sample Type <sup>1</sup>	RRV or ML
Sodium Adsorption Ratio (SAR) <sup>6</sup>	--	Report only	Report only	<sup>3</sup>	1/Discharge	Grab	--
Footnotes: 1. See Definitions and Abbreviations in section IV of this Permit for explanation of terms. 2. See Reporting Requirements in section I.C.5 of this Permit. 3. The effluent monitoring location is EFF-006. 4. For the duration of the discharge. 5. Requires a recording device or totalizer; Permittee must report average monthly and maximum daily flow on DMR. 6. Monitoring for SAR shall consist of monitoring for dissolved sodium, calcium, and magnesium, and the SAR shall be calculated according to the following equation based on results for these parameters. The ML for each of these parameters is 1.0 mg/L. $\text{SAR} = [\text{Na}^+]/\sqrt{0.5*([\text{Ca}^{2+}] + [\text{Mg}^{2+}])}$							

**Table 4. Alternate Numeric Final Effluent Limitations and Monitoring Requirements – Precipitation Events at Outfall 006C**

Parameter	Units	Average Monthly Limitation <sup>1</sup>	Maximum Daily Limitation <sup>1</sup>	Monitoring Location	Minimum Monitoring Frequency <sup>2</sup>	Sample Type <sup>1</sup>	RRV or ML
Flow	mgd	Report only	Report only	<sup>3</sup>	1/Day <sup>4</sup>	<sup>5</sup>	--
pH	s.u.	Between 6.0 and 9.0 at all times		<sup>3</sup>	1/Discharge	Grab	0.1
Oil and Grease	mg/L	--	10	<sup>3</sup>	1/Discharge	Grab	1
Electrical Conductivity (EC)	µS/cm	Report only	Report only	<sup>3</sup>	1/Discharge	Grab	10
Sodium Adsorption Ratio (SAR) <sup>6</sup>	--	Report only	Report only	<sup>3</sup>	1/Discharge	Grab	--
Footnotes: 1. See Definitions and Abbreviations in section IV of this Permit for explanation of terms. 2. See Reporting Requirements in section I.C.5 of this Permit. 3. The effluent monitoring location is EFF-006. 4. For the duration of the discharge. 5. Requires a recording device or totalizer; Permittee must report average monthly and maximum daily flow on DMR. 6. Monitoring for SAR shall consist of monitoring for dissolved sodium, calcium, and magnesium, and the SAR shall be calculated according to the following equation based on results for these parameters. The ML for each of these parameters is 1.0 mg/L. $\text{SAR} = [\text{Na}^+]/\sqrt{0.5*([\text{Ca}^{2+}] + [\text{Mg}^{2+}])}$							

**2. Western Alkaline Coal Mining Areas – Outfalls 001, 002, 003, 005, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, and 022.**

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge runoff from Outfalls 001-005 and 007-022 to the receiving waters listed in Table 1. Such discharges shall be limited and monitored by the permittee as specified below. The permittee has submitted a site-specific Sediment Control Plan (SCP) that identifies Best

Management Practices (BMPs), including design specifications, construction specifications, maintenance schedules, criteria for inspection, and expected performance and longevity of the BMPs. The SCP must also demonstrate using watershed models that the implementation of the SCP will result in average annual sediment yields that will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. The watershed model is the same model that was used to acquire the permittee's SMCRA permit.

## **Sediment Control Plan**

The permittee shall during the term of this permit operate the facility in accordance with the Sediment Control Plan (Sediment Control Plan for Area A, Sediment Control Plan for Area B, Big Sky Coal Company, November, 2009). Department approval of the Sediment Control Plan is based upon a demonstration that the Best Management Practices (BMP) given in the Plan will result in an average annual sediment yield that is less than the pre-mine undisturbed condition for the outfalls and watersheds specified in Part I.B.2 of this permit. The approved Sediment Control Plan applies to, and is limited to, reclamation areas, brushing and grubbing areas, topsoil stockpiling areas, and regraded areas, and is applicable until the facility receives final bond release.

## **2.1 Best Management Practices**

### **2.1.1 Limits of Disturbance**

Mining and reclamation operations at Big Sky Mine shall be designed and implemented to minimize the extent of disturbance. Operations must be designed to disturb only the land necessary to remove the coal resource. The extent of the disturbance area or affected lands includes the mined area, road right-of-ways, topsoil storage areas, facilities areas (e.g., sediment ponds) and reclamation areas. Disturbance areas associated with each outfall must meet the limitations presented in Table 5. Reclamation operations must be designed to complete reclamation and revegetation activities as quickly as possible (site conditions and weather permitting), to restore disturbed area to the postmine land use and minimize adverse impacts to the environment.

**Table 5. Disturbed acres within postmining drainages above MPDES outfalls.**

<b>Outfall</b>	<b>Postmining Watershed Area (acres)</b>	<b>Total Disturbance Area (acres)</b>
001 <sup>1</sup>	1619.5	238.4
002	1072.8	573.1
003	133.8	103.1
005 <sup>2</sup>	241.5	181.2
007	1359.6	381.5
008	35.8	24
009	71.4	56.6
010	46.8	25.2
011	85.1	65.2
012	615.1	176.5

Outfall	Postmining Watershed Area (acres)	Total Disturbance Area (acres)
013	312.1	179.9
014	181.5	90.3
015	16.7	12.9
016	35.8	30.1
017	522.4	95.7
018	39.2	37.4
020	1575.3	357.3
021	20.7	20.4
022	6331.2	215.3
<sup>1</sup> Values represent areas and average sediment yields above Pond I-4 in Miller Coulee		
<sup>2</sup> The watershed area for Outfall 019 (I-ST-3) was included in the watershed area modeled for both premining and postmining conditions for Outfall 005 (Pond I-29)		

### 2.1.2 Postmining Topography

Following coal removal, the disturbed area must be returned to a postmining topography that is similar to the original landform. Postmining topography design requires adjusting original landform elevations for the removed coal seam and swell of overburden or spoil material. Postmining topography shall be designed to blend into surrounding undisturbed hills and slopes. As mining progresses, spoil materials from the “active” pit will backfill the previous pit. Backfilled materials are to be placed to minimize adverse affects on groundwater, minimize off-site effects, and to support the approved postmining land use. Final grading of spoil material shall be performed in order to create surface irregularities to minimize erosion, increase infiltration, improve soil moisture holding characteristics for the revegetation process, and improve range condition and wildlife habitat.

During reclamation, a system of two-track trails will be maintained to provide post-mine access throughout the reclaimed mine area. The trails will ultimately facilitate livestock grazing activities for postmining land uses. Trails are constructed by either driving on established reclamation, grading to provide a road surface, or by narrowing a previous haul road. Roads should be no wider than 20 feet, and must be protected by using suitable road bed materials such as topsoil or scoria in limited locations. Water bars shall be constructed along steeper portions of two-track trails to direct runoff from exposed road surfaces into adjacent revegetated areas and to minimize erosion. Low water crossings should be armored with a protective layer of suitable materials such as gravel or scoria to minimize erosion. Low spots along flatter sections of two-track trails must be filled in using topsoil or other suitable materials as needed.

### 2.1.3 Postmining Drainage Channels

Postmine drainage configurations for reclaimed portions above Sediment Ponds are developed during the backfill and grading process to blend with undisturbed drainages above and below the disturbed area. Channels must be included in post-mining topography to restore pre-mine drainage pattern and minimize



adverse impacts to the hydrologic balance. Postmining drainage channels shall be designed, constructed and maintained to the following specifications:

- Average stream gradients will exhibit a concave longitudinal profile;
- Channels must remain in dynamic equilibrium with the drainage basin system without artificial structures;
- Channels will be restored to their natural meandering pattern with a stable gradient;
- Drainage divides (topographic features) must provide separation of flow between adjacent drainages;
- Channels will be designed for long-term stability of the landscape;
- Targeted channel and floodplain characteristics based on premining channels will be used to construct larger reclaimed channels;
- Channels and floodplains must safely pass the peak runoff from a 100-year, 6-hour precipitation event; and,
- Reconstructed drainage channels will be tied in to undisturbed areas with minimal deviations from overall concave longitudinal profiles to ensure stability.

Postmining channels will be designed for a 100-year, 24-hour storm event. Flows are calculated for the downstream end of the channel to ensure the postmining channel capacity is adequate. Overall concave longitudinal profiles shall be maintained where reclaimed channels tie in to undisturbed drainages. Design and construction methodology will be based on targeting premining channel and floodplain characteristics and evaluating limiting permissible velocity, which determines the channel linings (e.g., vegetated or rock riprap) needed to ensure stability.

#### **2.1.4 Soil Handling**

The permittee will use an overburden/spoil handling plan to ensure a minimum of four feet of suitable growth material is placed on backfilled and graded lands prior to topsoiling activities. Overburden must be tested to determine suitability as a plant growth material.

Site-specific soil survey data shall be used to ensure that the most suitable topsoil is salvaged. Regraded spoil should be ripped prior to topsoil replacement to reduce compaction and benefit revegetation efforts. Direct hauling of topsoil material should be utilized whenever possible. If direct hauling is not possible then the material will be stored in approved stockpiles. Topsoil must be replaced after approved postmining contours are achieved and when no additional disturbance is anticipated. Except where regraded materials are determined to be suitable as a plant growth material, topsoil should be placed at a mean depth of approximately 1.4 feet over reclaimed mine-lands upstream of MPDES outfalls. Upon completion of topsoiling activities, areas should be scarified to a minimum depth of 18 inches to enhance the rooting medium, increase infiltration, and reduce erosion.

### **2.1.5 Reclamation of Rills and Gullies**

Rills and gullies developed after completion of reclamation activities that are not stable relative to features present in the area prior to mining, interfere with the post-mine land use, and/or cause or contribute to a violation of a water quality standard shall be filled, mulched, re-graded, or remediated using other approved erosion control methods.

### **2.1.6 Revegetation Practices**

Following completion of backfilling and grading activities and topsoil redistribution, reclaimed mine-land areas shall be revegetated to support the proposed postmining land uses – livestock grazing and wildlife habitat. Across the majority of these watersheds, the revegetation plan was developed with herbaceous production emphasized over development of large woody plants. Emphasizing herbaceous vegetation ensures quick establishment of a vegetation community, enhances long-term stability, and minimizes erosion.

The permittee developed four seed mixes for permanent revegetation. The most prevalent seed mix used for revegetation was a rangeland mix comprised primarily of grasses and forbs. A drainage bottom seed mix was also developed and used to revegetate postmining drainages. Both seed mixes shall be used to revegetate the majority of reclaimed mine-land areas in watersheds above the outfalls. Seeding shall be accomplished by broadcasting or drilling on the contour. Two-phase seeding shall be employed to further ensure successful establishment of a diverse and permanent vegetative cover. The permittee shall conduct both qualitative and quantitative revegetation monitoring in order to evaluate seeding success, determine the success of applied reclamation practices, and collect data for bond release applications. Qualitative evaluations will be carried out at least annually during the growing season, while quantitative measurements and evaluations are conducted on a more periodic basis (normally peak of green in July) to support bond release.

### **2.1.7 Vegetated Depressions**

Sediment traps and ponds not approved to be left in the post-mining landscape as permanent impoundments shall be either completely removed or converted to small depressions. The small depressions will function to minimize erosion and conserve moisture, and will provide seasonal wetland habitat, replace or enhance areas for wildlife, provide additional plant diversity and production, and may be used seasonally by livestock depending on the duration of surface water. During reclamation of ponds and embankments associated with Outfalls, all small depressions will meet the following criteria:

- Depressions will not exceed one acre-foot in capacity
- Depressions constructed in reclaimed stream channels will not exceed the channel floodplain in width and will feature lengths 2-3 times the width of the depression.
- Depressions will be topsoiled and re-vegetated with an approved seed mixture.

Depressions shall be maintained until vegetation established by permanent seed mixes achieves the cover specifications for Phase III bond release.

### **2.1.8 Temporary BMPs**

The permittee shall use temporary BMPs to prevent additional contributions of sediment to streamflow and to minimize erosion to the extent possible. Temporary BMPs will be installed singly or in combination in the vicinity and downstream of each reclaimed sediment pond embankment until vegetation becomes re-established. Temporary BMPs may include the following:

- Contour scarification;
- Temporary linear detention and filtering structures such as filter fences and straw bale barriers;
- Rock down drains (riprap);
- Temporary check dams and small sediment traps; and,
- Temporary and permanent vegetation cover seed mixes.

Temporary BMPs used for site-specific control shall be removed once permanent vegetation cover is established.

## **2.2 Inspection Requirements**

2.2.1 Qualified personnel shall inspect BMPs described in the permit following each significant storm water rainfall event resulting in 2.0 inches of precipitation or more, or after significant snowmelt events. Inspections must be documented and maintained by the facility. Inspections and their respective records must include tracking or follow-up procedures to ensure adequate response and corrective actions have been taken based on any problems or deficiencies observed during the inspection.

2.2.2 The permittee must perform a Comprehensive Site Inspection to evaluate whether BMPs are adequate and properly implemented in accordance with the approved Plan. The Comprehensive Site Inspection must assess whether BMPs implemented to control sediment and any other pollutants are adequate to control pollution from the site and whether any revisions to the SCP such as additional BMPs are necessary.

## **2.3 Comprehensive Evaluation Report**

A copy of the Compliance Evaluation Report must be submitted to the Department (Water Protection Bureau) addressing the Comprehensive Site Inspection and any other inspections performed during each calendar year. An annual report shall be prepared for each year of the permit term. Each report shall be signed in accordance with the signature requirements given in Part III.C.7 of this permit. The annual report shall include:

- Identity of personnel making the inspection and the date(s) of the inspection(s);
- A summary of the observations and findings of each inspection;
- A summary of any correction action taken in accordance with Part III;

- A narrative description of any proposed or planned changes to the outfall design, BMP design, or maintenance programs to address significant erosion or sedimentation;
- A list of the average monthly precipitation and the quantity of precipitation received and date of rainfall fall events exceeding the 10-year, 24-hour precipitation event; and,
- An updated site map showing the location of all BMPs and status of reclamation activities in each watershed subject to this part.

The permittee shall submit a copy of the report to the Department by January 28<sup>th</sup> of each year for the preceding calendar year.

The Permittee must design, implement, and maintain the BMPs in the manner specified in the approved SCP throughout the term of this permit. The Permittee will also revise the SCP to incorporate new areas. A revised SCP and revised watershed model must be submitted and approved before it becomes effective. Revisions to the SCP must meet all requirements contained at 40 CFR Part 434.82, and 100% of the drainage area to an outfall that has been disturbed by mining must meet the definition of "western alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas" (as defined at 40 CFR 434.80) to be considered for coverage.

### 3. Toxicity Limitations – Not Applicable

### 4. Interim Effluent Limitations – Not Applicable

### 5. Other Monitoring Requirements

- Precipitation Monitoring.** Precipitation shall be monitored and recorded using a precipitation gauge that meets the standards provided in National Weather Services Instructional Bulletin 10-1302 (October 4, 2005), *Instrument Requirements and Standards for the NWS Surface Observing Programs (Land)*, and provided below.

Precipitation Gauge Performance Standard			
Parameter	Accuracy	Range	Resolution
Liquid Precipitation Accumulated Amount	±0.02 inches or 4 percent of hourly amount (whichever is greater)	0-10"/Hour	0.01 inches
Snow Depth	0 to 5 inches- ±0.5 inches >5 to 99 inches - ±1.0 inch	0 to 99 inches (auto)	1 inch
Freezing Precipitation	Detection occurs whenever 0.01" accumulates	0 to 40 inches	0.01 inches
Frozen Precipitation (water equivalent)	±0.04 inches or 1% of total accumulation	0 to 40 inches	0.01 inches

### **C. General Monitoring and Reporting Requirements**

Samples or measurements shall be representative of the volume and nature of the monitored discharge as specified. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form (EPA No. 3320-1) that no discharge occurred.

Data collected on site, copies of Discharges Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Director. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential [*ARM 17.30.1419*].

#### **1. Monitoring Locations**

The Permittee shall establish the monitoring locations as specified in Table 6 to demonstrate compliance with the effluent limitations and other requirements in section I of this permit. The Permittee shall monitor effluent at the specific monitoring location during discharge.

**Table 6. Monitoring Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Outfall 006	EFF-006	At a location at the crest of the overflow structure where effluent discharges as overflow and prior to contact with receiving water.

#### **2. Mass Loading Calculations – Not Applicable**

#### **3. Whole Effluent Toxicity Testing – Not Applicable**

#### **4. Monitoring Periods and Reporting Schedule**

Monitoring periods and reporting for all required monitoring shall be completed according to the schedule in Table 7.

When the minimum monitoring frequency is 1/Week or less (e.g, 1/Month), monitoring must take place on a weekday (Monday through Friday).

#### **5. Discharge Monitoring Reports**

All monitoring results obtained during the previous quarter shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) postmarked no later than the 28th day of the month following the completed monitoring quarter. If no discharge occurs during the monitoring period, “No Discharge” shall be reported on the report form.

**Table 7. Monitoring Periods and Reporting Schedule**

Required Monitoring Frequency	Monitoring Period Start Date	Monitoring Period	Reporting Due Date
1/Day	JULY 1, 2011	Midnight through 11:50 PM or any 24-hour period that reasonably represents a calendar day for purposes of monitoring	Due date for next DMR submittal
1/Month	JULY 1, 2011	1 <sup>st</sup> day of calendar month through last day of calendar month	Due date for next DMR submittal
Quarterly	JULY 1, 2011	Through the end of each calendar quarter	28 days from the end of each calendar quarter
Annually	JANUARY 1 FOLLOWING JULY 1, 2011	January 1 through December 31	28 days from the end of the monitoring period
1 / Discharge Event	JULY 1, 2011	Duration of discharge event	Due date for next DMR submittal

Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (see Section III.C.7. of this permit), and submitted to the Department and to the USEPA at the following addresses:

Montana Department of Environmental Quality  
Water Protection Bureau  
PO Box 200901  
Helena, Montana 59620-0901  
Phone: (406) 444-3080

## II. SPECIAL CONDITIONS

### A. Additional Monitoring and Special Studies – Not Applicable

### B. Best Management Practices and Pollution Prevention – Not Applicable

### C. Compliance Schedules – Not Applicable

### D. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

#### 1. **Water Quality Standards**

The water quality standards of the receiving water(s) to which the Permittee discharges are modified in such a manner as to require different effluent limitations than contained in this permit.

#### 2. **Water Quality Standards are Exceeded**

If it is found that water quality standards or Trigger Values in the receiving stream are exceeded either for parameters included in the permit or others, the Department may modify the effluent limitations or the water quality management plan. Trigger Values are used to determine if a given increase in the concentration of toxic parameters is significant or non-significant as per the non-degradation rules ARM 17.30.701 et seq. and are listed in Circular DEQ-7.

#### 3. **TMDL or Wasteload Allocation**

TMDL requirements or a wasteload allocation is developed and approved by the Department and/or USEPA for incorporation in this permit.

#### 4. **Water Quality Management Plan**

A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

#### 5. **Toxic Pollutants**

A toxic standard or prohibition is established under Clean Water Act Section 307(a) for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

#### 6. **Toxicity Limitations – Not Applicable**

### E. Storm Water Management – Not Applicable

### III. STANDARD CONDITIONS

#### A. Monitoring, Recording, and Reporting

1. **Representative Sampling:** Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity [*ARM 17.30.1342(10)(a)*].
2. **Monitoring and Reporting Procedures:** Monitoring results must be reported on a Discharge Monitoring Report (DMR) form at the intervals specified in Part I of this permit. Calculations for all limitations that require averaging of measurements must use an arithmetic mean unless otherwise specified by the Department in the permit [*ARM 17.30.1342(12)(d)(i), (iii)*]. Monitoring must be conducted according to test procedures approved under Title 40 of the Code of Federal Regulations (40 CFR) Part 136, unless other test procedures have been specified in this permit [*ARM 17.30.1342(10)(d)*].
3. **Penalties for Tampering:** The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000, or by imprisonment for not more than six months, or by both [*MCA 75-5-633*].
4. **Compliance Schedule Reporting:** Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date [*ARM 17.30.1342(12)(e)*].
5. **Additional Monitoring by the Permittee:** If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report [*ARM 17.30.1342(12)(d)(ii)*].
6. **Records Contents** [*ARM 17.30.1342(9)(a)*]: Records of monitoring information must include:
  - a. the date, exact place, and time of sampling or measurements;
  - b. the initials or name(s) of the individual(s) who performed the sampling or measurements;
  - c. the date(s) analyses were performed; and
  - d. the initials or name(s) of individual(s) who performed the analyses.
7. **Retention of Records:** The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application [*ARM 17.30.1342(10)(b)*].



- 8. Twenty-four Hour Notification** [*ARM 17.30.1342(12)(f)*]: The permittee shall report any serious incident of noncompliance affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances.
- a. Oral notification.** The report shall be made orally to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 841-3911. The following examples are considered serious incidents of noncompliance:
    - i. Any noncompliance which might seriously endanger health or the environment;
    - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit (See Subsection III.B.6 of this permit, "Bypass of Treatment Facilities");
    - iii. Any upset which exceeds any effluent limitation in the permit (See Subsection III.B.7 of this permit, "Upset Conditions") or;
    - iv. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in this permit to be reported within 24 hours.
  - b. Written notification.** A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
    - i. A description of the noncompliance and its cause;
    - ii. The period of noncompliance, including exact dates and times;
    - iii. The estimated time noncompliance is expected to continue if it has not been corrected; and
    - iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - c. Waiver of written notification requirement:** The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080. Reports shall be submitted to the addresses in Subsection I.C.5 of this permit ("Discharge Monitoring Reports").
- 9. Other Noncompliance Reporting:** Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Subsection I.C.5 of this permit ("Discharge Monitoring Reports") are submitted. The reports shall contain the information listed in Subsection III.A.8 of this permit ("Twenty-four Hour Notification") [*ARM 17.30.1342(12)(g)*].
- 10. Inspection and Entry** [*ARM 17.30.1342(9)*]: The permittee shall allow the head of the Department, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
- a.** Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - b.** Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c.** Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Montana Water Quality Act, any substances or parameters at any location.

**B. Compliance Responsibilities**

1. **Duty to Comply:** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [ARM 17.30.1342(1)]
2. **Planned Changes:** The permittee shall give advance notice to the Department of any planned changes at the permitted facility or of an activity that could result in noncompliance with permit requirements. [ARM 17.30.1342(12)(b)]
3. **Penalties for Violations of Permit Conditions**
  - a. In an action initiated by the Department to collect civil penalties against a person who is found to have violated a permit condition, the person is subject to a civil penalty not to exceed \$25,000. Each day of violation constitutes a separate violation [MCA 75-5-631 and ARM 17.30.1342(1)(b)].
  - b. The Montana Water Quality Act provides that any person who willfully or negligently violates a prohibition or permit condition is subject, upon conviction, to criminal penalties not to exceed \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions [MCA 75-5-632 and ARM 17.30.1342(1)(b)].
  - c. MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations.
  - d. Except as provided in permit conditions on Subsection III.B.7 of this permit ("Bypass of Treatment Facilities") and Subsection III.B.8 of this permit ("Upset Conditions"), nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
4. **Need to Halt or Reduce Activity Not a Defense:** It may not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [ARM 17.30.1342(3)].
5. **Duty to Mitigate:** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment [ARM 17.30.1342(4)].
6. **Proper Operation and Maintenance:** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance

with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit [ARM 17.30.1342(5)].

**7. Bypass of Treatment Facilities [ARM 17.30.1342(13)]**

- a. *Bypass not exceeding limitations.* The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions under “Prohibition of bypass” and “Notice” (Subsections III.B.7.b and c of this permit) below.
- b. *Prohibition of bypass.* Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:
  - i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - iii. The permittee submitted notices as required under “Notice” below (Subsection III.B.7.c of this permit).
- c. *Notice:*
  - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
  - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Subsection III.A.8 of this permit (“Twenty-four Hour Reporting”).
- d. *Approval of bypass under certain conditions.* The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above under “Prohibition of bypass” (Subsection III.B.7.b of this permit).

**8. Upset Conditions [ARM 17.30.1342(14)]**

- a. *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Subsection III.B.8.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- b. *Conditions necessary for a demonstration of upset.* A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
  - ii. The permitted facility was at the time being properly operated;
  - iii. The permittee submitted notice of the upset as required under Subsection III.A.8 of this permit ("Twenty-four Hour Notification"); and
  - iv. The permittee complied with any remedial measures required under Subsection III.B.5 of this permit, ("Duty to Mitigate").
- c. *Burden of proof.* In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

### **C. General Requirements**

1. **Planned Changes** [ARM 17.30.1342(12)(a)]: The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - a. The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under Subsection III.D.1 of this permit ; or
  - b. The alteration or addition to the permitted facility may meet one of the criteria in ARM 17.30.1340(2) for determining whether a facility is a new source.
2. **Anticipated Noncompliance:** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements [ARM 17.30.1342(12)(b)].
3. **Permit Actions:** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition [ARM 17.30.1342(6)].
4. **Duty to Reapply:** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must first apply for and obtain a new permit. [ARM 17.30.1342(2)] In accordance with ARM 17.30.1322(4), the application must be submitted at least 180 days before the expiration date of this permit.
5. **Duty to Provide Information:** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit [ARM 17.30.1342(8)].

**6. Other Information:** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information [ARM 17.30.1342(12)(h)].

**7. Signatory Requirements**

- a.** All applications, reports or information submitted to the Department shall be signed and certified [ARM 17.30.1342(11)].
- b.** All permit applications must be signed as follows:
  - i.** *For a corporation:* By a responsible corporate officer, which means
    - 1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
    - 2) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - ii.** *For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively.
  - iii.** *For a municipality, state, federal, or other public agency:* By either a principal executive officer or ranking elected official. A principal executive office of a federal agency includes:
    - 1) The chief executive officer of the agency; or
    - 2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- c.** *Authorized representatives.* All reports required by the permit and other information requested by the Department shall be signed by a person described above in Subsection III.C.7.b of this permit or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
  - i.** The authorization is made in writing by a person described above in Subsection III.C.7.b and submitted to the Department; and
  - ii.** The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (a duly authorized representative may thus be either a named individual or an individual occupying a named position).
- d.** *Changes to authorization.* If an authorization under Subsection III.C.7.c of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Subsection III.C.7.c of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

- e. **Certification.** Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

8. **Penalties for Falsification of Reports:** The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or both [MCA 75-5-633].
9. **Property or Water Rights:** The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privilege [ARM 17.30.1342(7)].
10. **Severability:** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby [ARM 17.30.1302].
11. **Transfers** [ARM 17.30.1360(2)]: This permit may be automatically transferred to a new permittee if:
- a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;
  - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
  - c. The Department does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Subsection III.C.13.b of this permit; and
  - d. Required annual and application fees have been paid.
12. **Fees** [ARM 17.30.201(8)]: The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:
- a. Impose an additional assessment consisting of 15% of the fee plus interest on the required fee computed at the rate established under 15-31-510(3), MCA, or

- b. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this subsection. Suspensions are limited to one year, after which the permit will be terminated.

**D. Notification Levels**

1. The permittee shall comply with effluent standards or prohibitions established under Clean Water Act Section 307(a) for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement [*ARM 17.30.1342(1)(a)*].
2. Notification shall be provided to the Department as soon as the permittee knows of, or has reason to believe [*ARM 17.30.1343(1)(a)*]:
  - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
    - i. One hundred micrograms per liter (100 µg/l);
    - ii. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
    - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - iv. The level established by the Department in accordance with 40 CFR 122.44(f).
  - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
    - i. Five hundred micrograms per liter (500 µg/l);
    - ii. One milligram per liter (1 mg/l) for antimony;
    - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - iv. The level established by the Department in accordance with 40 CFR 122.44(f).

#### IV. DEFINITIONS AND ABBREVIATIONS

"1-year, 2-year, and 10-year, 24-hour precipitation events" means the maximum 24-hour precipitation event with a probable recurrence interval of once in one, two, and ten years, respectively, as defined by the National Weather Service Technical Paper No. 40, *Rainfall Frequency Atlas of the U.S.*, May 1961, or equivalent regional or rainfall probability information developed therefrom.

"Act" means the Montana Water Quality Act, Title 75, chapter 5, MCA.

"Active mining area" means the area, on and beneath land, used or disturbed in activity related to the extraction, removal, or recovery of coal from its natural deposits. This term excludes coal preparation plants, coal preparation plant associated areas, and post-mining areas.

"Acute Toxicity" occurs when 50 percent or more mortality is observed for either species (See Subsection I.C of this permit) at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.

"Administrator" means the administrator of the United States Environmental Protection Agency.

"Alkaline mine drainage" means mine drainage which, before any treatment, has a pH equal or greater than 6.0, and total iron concentration of less than 10 mg/L.

"Annual Average Load" means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.

"Arithmetic Mean" or "Arithmetic Average" for any set of related values means the summation of the individual values divided by the number of individual values.

"Average monthly limitation" means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

"Average weekly limitation" means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

"Best Management Practices" (BMPs) mean schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States.

"Bond release" means the time at which the appropriate regulatory authority returns a reclamation or performance bond based upon its determination that reclamation work has been satisfactorily completed.

"Brushing and grubbing area" means the area where woody plant materials that would interfere with soil salvage operations have been removed or incorporated into the soil being salvaged.



"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"CFR" means the Code of Federal Regulations.

"Chronic toxicity" occurs when, during a chronic toxicity test, the 25% inhibition concentration ( $IC_{25}$ ) for any tested species is less than or equal to 100% effluent (i.e.,  $IC_{25} \leq 100\%$  effluent).

"Clean Water Act" means the federal legislation at 33 USC 1251, et seq.

"Coal preparation plant" means a facility where coal is subjected to cleaning, concentrating, or other processing preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility.

"Coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

"Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

- a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
- b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
- c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,
- d. Continuous collection of sample, with sample collection rate proportional to flow rate.

"Daily Discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

"Department" means the Montana Department of Environmental Quality (MDEQ). Established by 2-15-3501, MCA.

"Director" means the Director of the Montana Department of Environmental Quality.

"Discharge" means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.

"Effluent Limitations Guidelines" (ELGs) mean regulations published by the Administrator under Section 304(b) of the CWA that establishes national technology-based effluent requirements for a specific industrial category.

"EPA" or "USEPA" means the United States Environmental Protection Agency.

"GPM" means gallons per minute.

"Grab Sample" means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.

"Instantaneous Maximum Limit" means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.

"Instantaneous Measurement", for monitoring requirements, means a single reading, observation, or measurement.

"Maximum Daily Limit" means the highest allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.

"mg/L" means milligrams per liter.

"Mine drainage" means any drainage, and any water pumped or siphoned, from an active mining area or a post-mining area.

"Minimum Level" (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit. (ARM 17.30.702(22))

"Mixing zone" means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.

"mL/L" means milliliters per liter.

"Nondegradation" means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.

"Reclamation area" means the surface area of a coal mine which has been returned to required contour and on which re-vegetation (specifically, seeding or planting) work has commenced.

"Regraded area" means the surface area of a coal mine that has been returned to required contour.

"Regional Administrator" means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.

"Settleable solids" means that matter measured by the volumetric method specified in 40 CFR 434.64.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"SMCRA" means the Surface Mining Control and Reclamation Act.

"Storm water" means storm water runoff, snow melt runoff, and surface run-off and drainage in response to a precipitation event.

"TMDL" means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.

"Topsoil stockpiling area" means the area outside the mined-out area where topsoil is temporarily stored for use in reclamation, including containment berms.

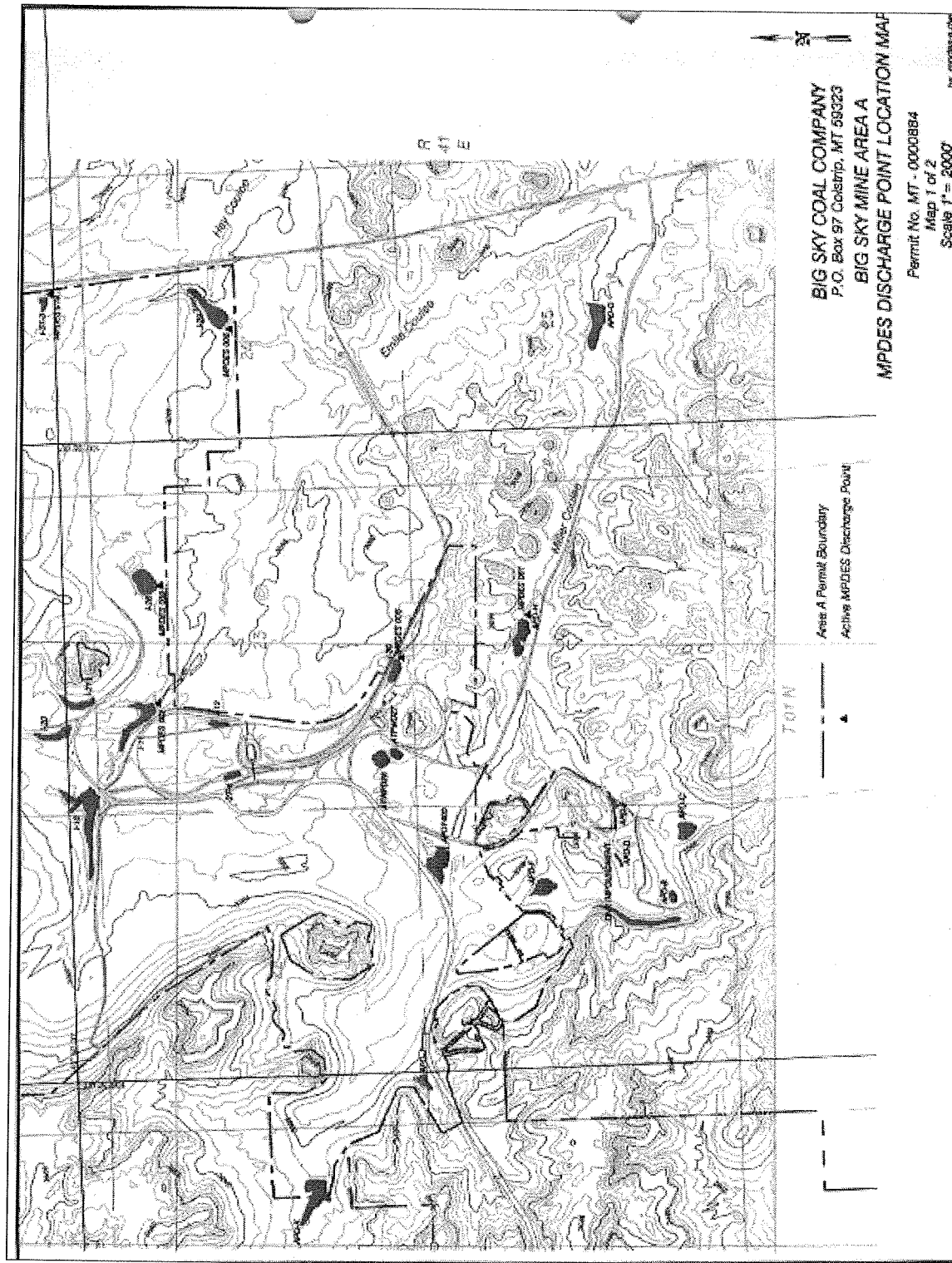
"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

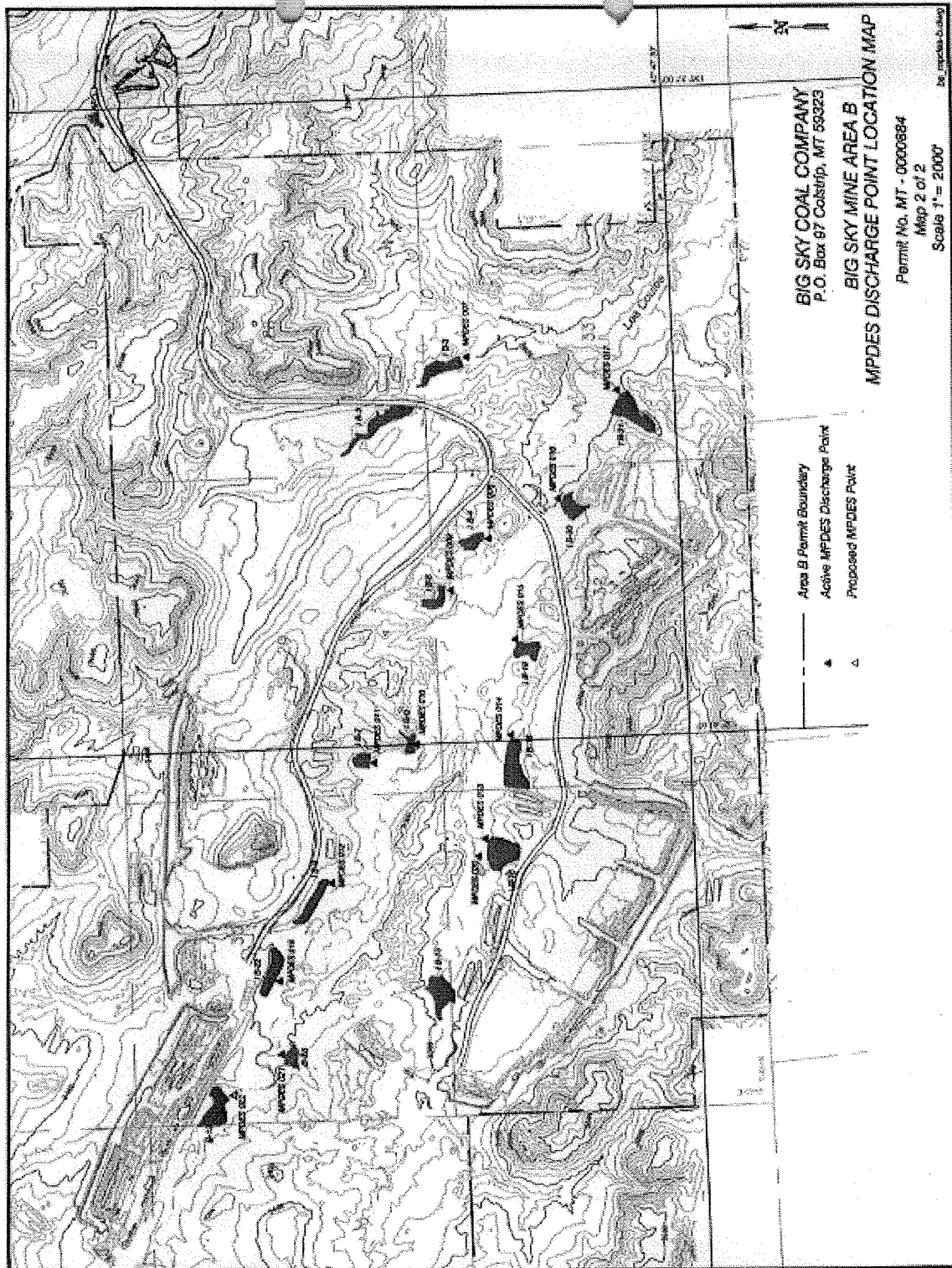
**ATTACHMENT I – MAP**

**ATTACHMENT II – FLOW SCHEMATIC**

**ATTACHMENT III – STATEMENT OF BASIS**

ATTACHMENT I - MAP





## ATTACHMENT II – FLOW SCHEMATIC

